

## Syllabus for Private Pilot Ground School

2/26/2019 – 4/30/2019

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### Objectives

- Teach the aeronautical knowledge areas required by the Federal Aviation Regulations (FARs), specifically 14 CFR 61.105.
- Prepare students to take the Private Pilot-Airplane Knowledge Test.
- Promote principles of good Aeronautical Decision Making (ADM), Single-Pilot Resource Management (SRM), and airmanship.

### Required Course Materials and References

*Note: All of these supplies can be purchased at local or online pilot shops. The nearest brick-and-mortar shop to both WVFC locations is San Carlos Aviation & Supply: (650) 592-2322, located on the east side of San Carlos Airport in the terminal building. There are also many online vendors who stock these products ([www.asa2fly.com](http://www.asa2fly.com), [www.mypilotstore.com](http://www.mypilotstore.com), [www.sportys.com/pilotshop/](http://www.sportys.com/pilotshop/), etc.). Finally, all government publications are available as free online PDFs. Document versions and links are current as of 11/1/2018.*

- *Pilot's Handbook of Aeronautical Knowledge* (FAA-H-8083-25B)
  - Link to PDF: [https://www.faa.gov/regulations\\_policies/handbooks\\_manuals/aviation/phak/](https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/phak/)
- *Airplane Flying Handbook* (FAA-H-8083-3B)
  - Link to PDF: [http://www.faa.gov/regulations\\_policies/handbooks\\_manuals/aviation/airplane\\_handbook/](http://www.faa.gov/regulations_policies/handbooks_manuals/aviation/airplane_handbook/)
- FAR/AIM
  - It is recommended that you purchase a hard copy of the combined Federal Aviation Regulations and *Aeronautical Information Manual* (published by ASA, see link above, or purchase from San Carlos Aviation & Supply).
  - <http://www.asa2fly.com/2019-FARAIM-P3907C551.aspx>
  - Link to FARs: [https://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&tpl=/ecfrbrowse/Title14/14tab\\_02.tpl](https://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&tpl=/ecfrbrowse/Title14/14tab_02.tpl)
  - Link to AIM PDF: [https://www.faa.gov/air\\_traffic/publications/](https://www.faa.gov/air_traffic/publications/)
- *2019 Private Pilot Test Prep*, by ASA (**hard copy needed to follow along in class**)
  - <http://www.asa2fly.com/Test-Prep-2019-Private-Pilot-P3930C9.aspx>
  - You may also opt to purchase ASA's Test Prep Bundle, which includes the book plus practice questions and tests online and as a downloadable software product.
- E6-B flight computer (metal or paper)
- Plotter (ASA Fixed or Rotating Plotter)
- San Francisco Sectional Chart
- San Francisco VFR Terminal Area Chart
- Chart Supplement – Southwest US
  - Link to PDF: [https://www.faa.gov/air\\_traffic/flight\\_info/aeronav/digital\\_products/dafd/](https://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/dafd/)

See Appendix A for additional references.

## **Course Outline:**

<b>ID</b>	<b>Summary of Lesson Content</b>	<b>Hrs</b>
GL1	Aerodynamics	3.0
GL2	Powerplants and aircraft systems; Flight instruments	3.0
GL3	Federal Aviation Regulations; NTSB accident reporting requirements; Airspace	3.0
GL4	Procedures and airport operations; Aeronautical Information Manual (AIM), FAA Advisory Circulars (ACs), and other publications	3.0
GL5	Safe and efficient operation, including collision avoidance and wake turbulence; Stall awareness; Spins and spin recovery techniques; ADM and judgment; Human factors	3.0
GL6	Weather theory; Recognition of critical weather; Windshear avoidance	3.0
GL7	Weather reports and forecasts	3.0
GL8	Aircraft performance; Weight and balance	3.0
GL9	Enroute flight; Aeronautical charts; Pilotage; Dead reckoning; Navigation systems	3.0
GL10	Preflight action; Runway data, weather reports and forecasts, and fuel requirements; Planning for alternatives; Radio communication procedures	3.0
<b>Total</b>		<b>30.0</b>

*Please note that short breaks will be included in each 3-hour session.*

## **Completion Standards:**

- Each student must attend all sessions in their entirety. If a student misses a session in whole or in part, that student must attend the same session during the next offering of the course or attend a special makeup session. Some missed sessions can be replaced by independent work at the discretion of the instructor.
- Each student must score 80% or higher on a practice knowledge test.

*Note: This syllabus only attempts to meet the requirements of FAR 61.105 and prepare students to take the Private Pilot Knowledge Test. It does not attempt to fulfill any of the other requirements for Private Pilot training or certification.*

## **About the Course:**

- Course fee is non-refundable, and includes up to 3 repeat or makeup sessions.
- Instructor: Marc Kaufman CGI (Advanced and Instrument Ground Instructor)
  - Phone: (650) 851-5777
  - eMail: Marc@KaufmanResearch.ORG

## Appendix A: Additional Materials and References

- *Aeronautical Chart User's Guide*
  - Link to web format and PDF: [https://www.faa.gov/air\\_traffic/flight\\_info/aeronav/digital\\_products/aero\\_guide/](https://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/aero_guide/)
- *Aeronautical Decision Making (AC 60-22)*
  - Link to PDF: [https://www.faa.gov/regulations\\_policies/advisory\\_circulars/index.cfm/go/document.information/documentID/22624](https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/22624)
- *Aircraft Fuel Control (AC 20-43C)*
  - Link to PDF: [https://www.faa.gov/regulations\\_policies/advisory\\_circulars/index.cfm/go/document.information/documentID/22581](https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/22581)
- *Aircraft Weight and Balance Handbook (FAA-H-8083-1B)*
  - Link to PDF: [https://www.faa.gov/regulations\\_policies/handbooks\\_manuals/aviation/media/FAA-H-8083-1.pdf](https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/media/FAA-H-8083-1.pdf)
- *Aviation Weather (AC 00-6B)*
  - Link to PDF: [https://www.faa.gov/regulations\\_policies/advisory\\_circulars/index.cfm/go/document.information/documentID/1029851](https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/1029851)
- *Aviation Weather Services (AC 00-45H Chg 1)*
  - Link to PDF: [http://www.faa.gov/documentLibrary/media/Advisory\\_Circular/AC\\_00-45H\\_Chg\\_1.pdf](http://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_00-45H_Chg_1.pdf)
- *Instrument Flying Handbook (FAA-H-8083-15B)*
  - Link to PDF: [https://www.faa.gov/regulations\\_policies/handbooks\\_manuals/aviation/media/FAA-H-8083-15B.pdf](https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/media/FAA-H-8083-15B.pdf)
- *Instrument Procedures Handbook (FAA-H-8083-16B)*
  - Link to PDF: [https://www.faa.gov/regulations\\_policies/handbooks\\_manuals/aviation/instrument\\_procedures\\_handbook/](https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/instrument_procedures_handbook/)
- Notices to Airmen (NOTAMs)
  - Link to PDF: [https://www.faa.gov/air\\_traffic/publications/notices/](https://www.faa.gov/air_traffic/publications/notices/)
- *Pilots' Role in Collision Avoidance (AC 90-48D Change 1)*
  - Link to PDF: [https://www.faa.gov/regulations\\_policies/advisory\\_circulars/index.cfm/go/document.information/documentID/1029428](https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/1029428)
- *Risk Management Handbook (FAA-H-8083-2 Change 1)*
  - Link to PDF: [https://www.faa.gov/regulations\\_policies/handbooks\\_manuals/aviation/media/risk\\_management\\_hb\\_change\\_1.pdf](https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/media/risk_management_hb_change_1.pdf)

## Appendix B: FAR Checklist

<b>Part.Section</b>	<b>Paragraph</b>	<b>Summary (see FARs for full requirements)</b>	<b>Lesson(s)</b>
61.105	Aeronautical	knowledge	
	(b)(1)	FARs relating to private pilots	GL3
	(b)(2)	NTSB accident reporting requirements	GL3
	(b)(3)	Use of AIM and FAA ACs	GL4
	(b)(4)	Use of aeronautical charts; pilotage; dead reckoning; navigation systems	GL9
	(b)(5)	Radio communication procedures	GL10
	(b)(6)	Recognition of critical weather; windshear avoidance; weather reports and forecasts	GL6, GL7
	(b)(7)	Safe and efficient operation; collision avoidance; wake turbulence	GL5
	(b)(8)	Effects of density altitude	GL8
	(b)(9)	Weight and balance	GL8
	(b)(10)	Aerodynamics; powerplants; aircraft systems	GL1, GL2
	(b)(11)	Stall awareness; spins; spin recovery techniques	GL5
	(b)(12)	Aeronautical Decision Making and judgment	GL5
	(b)(13)	Preflight action	GL10
	(b)(13)(i)	Runway data; weather reports and forecasts; fuel requirements	GL10
	(b)(13)(ii)	Planning for alternatives	GL10